(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization

International Bureau





(43) International Publication Date 10 June 2004 (10.06.2004)

PCT

(10) International Publication Number WO 2004/048295 A1

(51) International Patent Classification⁷: 45/30

C06B 27/00,

(21) International Application Number:

PCT/SE2003/001842

(22) International Filing Date:

28 November 2003 (28.11.2003)

(25) Filing Language:

Swedish

(26) Publication Language:

English

(30) Priority Data:

0203520-2

28 November 2002 (28.11.2002) SE

(71) Applicant (for all designated States except US): TOTAL-FORSVARETS FORSKNINGSINSTITUT [SE/SE]; SE-172 90 Stockholm (SE).

- (72) Inventor; and
- (75) Inventor/Applicant (for US only): HAHMA, Arno [FI/FI]; Leppakuja 8, FI-21380 Aura (FI).

(74) Agent: FORSVARETS MATERIELVERK; Patentenheten, SE-115 88 Stockholm (SE).

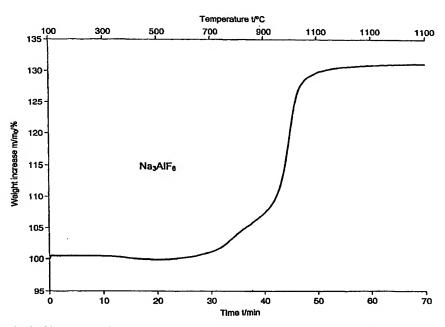
- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: METHOD OF IMPROVING THE BURN RATE AND IGNITABILITY OF ALUMINIUM FUEL PARTICLES AND ALUMINIUM FUEL SO MODIFIED



(57) Abstract: A method of improving the burn rate and ignitability of aluminium fuel particles, and a thus modified aluminium fuel for use in propellant and explosive compositions and pyrotechnic charges. Aluminium fuel particles are treated with an aqueous solution of hydrofluoric acid and a fluoride and/or complex fluoride salt of an alkali metal and/or alkaline earth metal to form a surface layer of a fluoride complex bound to the aluminium fuel particle.

